IN THE CLAIMS:

Please write the claims to read as follows:

Please cancel claims 2 and 15 without prejudice.

1   1. (Currently Amended) A method comprising:

2   performing a cyclic redundancy check (CRC) on each of a plurality of code

3 blocks of a turbo product code (TPC) code word; ~~and~~

4   assigning an artificially high probability confidence measure to bits of any of the

5 plurality of code blocks which pass the CRC; and

6   <u>iteratively decoding the TPC code word between a soft decision algorithm of a</u>

7 <u>sequence detector and a TPC decoder using the artificially high probability confidence</u>

8 <u>measure assigned to bits of code blocks which pass the CRC.</u>

1   2. (Cancelled)

1   3. (Currently Amended) The method of claim <u>2</u>1, wherein performing the CRC on each

2 of the plurality of code blocks further comprises performing the CRC on each of the

3 plurality of code blocks during a first iteration between the soft decision algorithm and

4 the TPC decoder.

1   4. (Original) The method of claim 3, wherein performing the CRC on each of the

2 plurality of code blocks during the first iteration between the soft decision algorithm and

3 the TPC decoder further comprises performing the CRC on each of the code blocks after

4 decoding using the TPC decoder and before the corresponding probability confidence

5   measures from the plurality of code blocks are sent back to the soft decision algorithm.

1   5. (Original) The method of claim 4, wherein performing the CRC on each of the

2   plurality of code blocks further comprises performing the CRC on each of the plurality of

3   code blocks during each of a plurality- of iterations between the soft decision algorithm

4   and the TPC decoder, and wherein assigning the artificially high probability confidence

5   measure to bits of any of the plurality of code blocks which pass the CRC further

6   comprises assigning the artificially high probability confidence measure to bits of each

7   code block which passes the CRC during the iteration in which the code block passes the

8   CRC.

1   6. (Currently Amended) The method of claim ~~2~~1, wherein the probability confidence

2   measures are log-likelihood ratios, and wherein assigning the artificially high probability

3   confidence measure comprises assigning an artificially high log-likelihood ratio.

1   7. (Currently Amended) The method of claim ~~2~~1, wherein the soft decision algorithm is

2   a soft output viterbi algorithm (SOVA).

1   8. (Currently Amended) The method of claim ~~2~~1, wherein the soft decision algorithm is

2   a Bahl, Cocke, Jelinek, and Raviv (BCJR) algorithm.

1   9. (Currently Amended) The method of claim ~~2~~1, wherein the TPC code word is a TPC

2   code word with single parity check (TPC/SPC).

1   10-11. (Cancelled)

12. (Currently Amended) A communication system, comprising:

iterative decoder implementing circuitry configured to: implement the method of claim 1

i) perform a cyclic redundancy check (CRC) on each of a plurality of code blocks of a turbo product code (TPC) code word;

ii) assign an artificially high probability confidence measure to bits of any of the plurality of code blocks which pass the CRC; and

iii) iteratively decode the TPC code word between a soft decision algorithm of a sequence detector and a TPC decoder using the artificially high probability confidence measure assigned to bits of code blocks which pass the CRC.

13. (Currently Amended) An apparatus comprising:

an iterative decoder having a TPC decoder and a sequence detector implementing a soft decision algorithm, the iterative decoder configured to iteratively decode a turbo product code (TPC) code word between the sequence detector and TPC decoder;

cyclic redundancy check (CRC) implementing circuitry configured to perform a CRC on each of a plurality of code blocks of the TPC code word; and

pre-determined extrinsic information generating circuitry configured to assign extrinsic information representing an artificially high probability confidence measure to bits of any of the plurality of code blocks which pass the CRC, the artificially high probability confidence measure used by the iterative decoder.

14. (Original) The apparatus of claim 13, wherein the cyclic redundancy check implementing circuitry forms part of the iterative decoder.

1   15. (Cancelled)

1 | 16. (Currently Amended) The apparatus of claim ~~15~~13, wherein the soft decision

2   algorithm is a soft output viterbi algorithm (SOVA).

1 | 17. (Currently Amended) The apparatus of claim ~~15~~13, wherein the soft decision

2   algorithm is a Bahl, Cocke, Jelinek, and Raviv (BCJR) algorithm.

1 | 18. (Currently Amended) The apparatus of claim ~~15~~13, wherein the TPC decoder is

2   configured to decode a TPC code word with single parity check (TPC/SPC).

1 | 19. (Currently Amended) The apparatus of claim ~~15~~13, wherein the iterative decoder

2   and the CRC implementing circuitry are configured to perform the CRC on each of the

3   code blocks after decoding using the TPC decoder and before the corresponding extrinsic

4   information from the plurality of code blocks are sent back to the soft decision algorithm.

1   20. (Original) The apparatus of claim 19, wherein the iterative decoder and the CRC

2   implementing circuitry are configured to perform the CRC on each of the plurality of

3   code blocks during each of a plurality of iterations between the soft decision algorithm

4   and the TPC decoder, and wherein the predetermined extrinsic information generating

5   circuitry is configured to assign the extrinsic information representing the artificially high

6   probability confidence measure to bits of any of the plurality of code blocks which pass

7   the CRC during the iteration in which the code block passes the CRC.